Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Previously Presented) A method including:
generating a first check word based on incoming data;
storing the first check word in a write accumulator;
generating a second check word based on stored data;
storing the second check word in a read accumulator;
comparing the first check word to the second check word by way of a compare circuit connected to the write accumulator and the read accumulator;
generating a comparison result; and
indicating a failure based on the comparison result.

2. (Original) The method of claim 1 wherein generating the second check word occurs at a time subsequent to the data being stored and prior to the data being overwritten.

3. (Original) The method of claim 1 further comprising: generating the second check word during periods of time when the device storing the data is in an idle state.

4. (Original) The method of claim 1 further comprising: synchronizing the generation of the second check word to the reading and writing of the data.

5. (Original) The method of claim 1 wherein generating the second check word further comprises reading bytes from a selected set of memory locations.

6. (Original) The method of claim 5 wherein the selected set of memory locations includes memory locations included in a single memory.

7. (Original) The method of claim 5 wherein the selected set of memory locations includes memory locations included in multiple memories.

8. (Original) The method of claim 7 further comprising reading the multiple memories simultaneously.

9. (Canceled)

10. (Canceled)

11. (Previously Presented) A method comprising:

generating a first check word based on incoming data to a subset of a plurality of memories;

storing the first check word in a write accumulator;

reading a set of data stored in the subset of the memories;

generating a second check word based on the set of data;

storing the second check word in a read accumulator;

comparing the first check word to the second check word by way of a compare circuit connected to the write accumulator and the read accumulator;

generating a comparison result; and

indicating a failure based on the comparison result.

12. (Original) The method of claim 11 wherein reading a set of data stored in the predetermined subset of the memories includes reading data from multiple memories simultaneously.

13. (Previously Presented) A computer program product tangibly embodied on a computer readable medium, for checking contents of a memory in network switching environment comprising instructions for causing a computer to:

generate a first check word based on incoming data;

store the first check word in a write accumulator;

generate a second check word based on stored data;

store the second check word in a read accumulator;

compare the first check word to the second check word by way of a compare circuit connected to the write accumulator and the read accumulator;

generate a comparison result; and

indicate a failure based on the comparison result.

14. (Original) The computer program product of claim 13 further comprising instructions to: generate the second check word at a time subsequent to the data being stored and prior to the data being overwritten.

15. (Original) The computer program product of claim 13 further comprising instructions to: generate the second check word during periods of time when the device storing the data is in an idle state.

16. (Original) The computer program product of claim 13 further comprising instructions to: synchronize the generation of the second check word to the reading and writing of the data.

17. (Original) The computer program product of claim 13 further comprising instructions to: generate the second check word by reading bytes from a selected set of memory locations.

18. (Previously Presented) The computer program product of claim 13 further comprising instructions to: generate the second check word by reading bytes simultaneously from multiple memory locations.

19. (Canceled)

20. (Canceled)

21. (Previously Presented) A computer program product tangibly embodied on a computer readable medium, for checking contents of a set of memories in network switching environment comprising instructions for causing a computer to:

store data in multiple memories;

generate a first check word based on incoming data to a predetermined subset of the memories;

store the first check word in a write accumulator;

read a set of data stored in the predetermined subset of the memories;

generate a second check word based on the set of data;

store the second check word in a read accumulator;
compare the first check word to the second check word by way of a compare circuit connected to the write accumulator and the read accumulator;
generate a comparison result; and
indicate a failure based on the comparison result.

22. (Original) The computer program product of claim 21 further comprising instructions to: generate the second check word at a time subsequent to the data being stored and prior to the data being overwritten.

23. (Original) The computer program product of claim 21 further comprising instructions to: generate the second check word during periods of time when the device storing the data is in an idle state.

24. (Original) The computer program product of claim 21 further comprising instructions to: synchronize the generation of the second check word to the reading and writing of the data.

25. (Original) The computer program product of claim 21 further comprising instructions to: generate the second check word by reading bytes from a selected set of memory locations.

26. (Previously Presented) The computer program product of claim 21 further comprising instructions to: generate the second check word by reading bytes simultaneously from multiple memory locations.

27. (Canceled)

28. (Canceled)